

Self-Generating Air Cushion Vessel

Abstract

A rigid concavity is formed in the underside of a hull of a water craft. Air enters into the concavity when the water craft is moving forward. Supplemental air is introduced into the concavity by an air scoop mounted to the bow. A one-way valve in an air passage-way between the air scoop and the concavity prevents air from flowing from the concavity to the air scoop. A first stern plate mounted at a slight downward angle causes air to flow under the stern in the form of small bubbles and increases the back pressure presented to the flow of water and air through the concavity. A pair of adjustably mounted stern plates may also be provided on opposite sides of the motor to control the amount of back pressure. The airflow through the rigid concavity reduces drag so that the water craft can travel at higher speeds.